



July 6, 2006

Robert Sydney, Esq.  
General Counsel  
Massachusetts Division of Energy Resources  
100 Cambridge Street, Suite 1020  
Boston, MA 02114

Re: Comments on Proposed Revisions to the Regulations for the Massachusetts Renewable Energy Portfolio Standard, 225 CMR 14.00

Dear Mr. Sydney:

Thank you for the opportunity to provide the Division of Energy Resource (the Division) with comments on the Proposed Revisions (the Proposed Revisions) to the Regulations for the Massachusetts Renewable Energy Portfolio Standard, 225 CMR 14.00 (the Regulations).

By way of background, Fat Spaniel Technologies, Inc. (FST) provides independent metering and data monitoring solutions specifically designed for reporting, verifying, and auditing the performance of solar, wind, fuel cell, and other distributed generation installations. FST's management team includes engineers, accountants, database designers, software architects and renewable energy experts. Accordingly, the following comments address metering, monitoring, and verification issues within the Regulations as they generally apply to small Generation Units and behind-the-meter Generation Units.

In both cases, the current Proposed Revisions call for the verification of electrical energy output, and thus the creation of GIS Certificates used to support the Renewable Energy Portfolio Standard (RPS), in a "manner satisfactory to the Division". While the Regulations currently provide clear and predictable guidelines with respect to the metering requirements that wholesale generation units must meet (i.e., such units must fulfill "ISO-NE metering requirements") the Regulations as drafted do not presently do so with respect to small Generation Units and behind-the-meter Generation Units.

As echoed many times in prior written comments by others, as well as during the public hearing on June 28, 2006, there is a strong consensus among stakeholders that the Regulations should be comprised of predicable, clear standards that provide all parties with the highest degree of certainty and consistency as to their application. Indeed, in its Background Document on the Proposed Revisions, the Division noted the importance of clarifying the documentation of RPS compliance in Massachusetts.

We sincerely hope that FST's comments attached in Exhibit A will prove useful to the Division in defining the metering requirements applicable to small and off-grid renewable generators in a way that will clarify and strengthen the Regulations so as to increase the predictability and value of the GIS Certificate market and the RPS which it supports.

Sincerely,

David Kopans  
Director  
Fat Spaniel Technologies, Inc.

## Exhibit A

Fat Spaniel Technologies, Inc. (FST) proposes that relevant sections of the Regulations be modified to incorporate and clearly state the following requirements for the metering of the output of small and behind-the-meter Generation Units (including Aggregations of those Generation Units), without regard to the capacity of those Generation Units:

### 1) **Accuracy**

All kWh Meters shall meet “revenue quality” ANSI C-12 standards with respect to the accuracy of recording kWh produced and used.

Note: Owners of renewable energy generators funded by the Massachusetts’ Renewable Energy Trust must already report their system’s electrical output using a meter that meets the “utility revenue quality” standard (i.e., ANSI C-12).

Also, small Generation Units that self-report their generation data in the NEPOOL Generation Information System (NE-GIS) are required to provide the Administrator of the GIS with meter data meeting the requirements of ISO New England Operating Procedure No. 18, which states, “All metering devices used shall conform to applicable American National Standard Institute (ANSI) C-12 standards as amended from time to time”. The Division has “encourage[d] all Generation Units to participate in the NE-GIS,”<sup>1</sup> which effectively means that those Generation Units should already be complying with this requirement.

Moreover, the Division has reserved to itself “the right to verify, to its satisfaction, the quality of the data reported to the NE-GIS” by small Generation Units.<sup>2</sup> Requiring that the small and behind-the-meter Generation Units meter their output in a way that meets revenue-quality ANSI C-12 standards will make this verification by the Division significantly easier, and therefore less costly to the Commonwealth.

Therefore, modifying the Regulations as suggested merely codifies a current requirement for the vast majority of RPS-eligible systems and promotes a RPS and GIS Certificate market where only accurately metered renewable generation is rewarded for every invested ratepayer dollar dedicated to RPS compliance.

### 2) **Measurement**

All kWh meters shall be bi-directional and report the system’s net available / usable power (i.e. net of standby losses, transformer losses, and grid power utilized by the system for significant items such as tracking systems, pumps, etc.)

Note: FST has seen significant standby and transformer losses on many photovoltaic solar (PV) systems. In some cases these losses have almost exceeded PV production. Without basing GIS Certificates on a bi-directional kWh meter these losses are either A) added to PV production, thus overstating production or B) not properly deducted from the PV production, thus overstating the benefit of the PV system.

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<sup>1</sup> Division of Energy Resources, Application Guide to the Application for Statement of Qualification Pursuant to the Renewable Energy Portfolio Standard, Section 4.1.

<sup>2</sup> Division of Energy Resources, Application Guide to the Application for Statement of Qualification Pursuant to the Renewable Energy Portfolio Standard, Appendix C, Section C.1.

Modifying the Regulations as suggested promotes a RPS and GIS Certificate market where only truly useable renewable generation is rewarded for every invested ratepayer dollar dedicated to RPS compliance.

3) **Independence**

All kWh meters for small and behind-the-meter Generation Units must be read and handled by an independent third-party with no financial stake in the reported data. The standards for independence should require that the third party have no ownership interest (including through a corporate affiliate or a family member) in the Generation Unit or the operator of the Generation Unit and that the third party's compensation for its metering service be based on factors that are not related to the capacity or output of the Generation Unit or the number of GIS Certificates created for the Generation Unit.<sup>3</sup>

Note: The generation of GIS Certificates and the sale thereof creates powerful financial incentives for generation owners to inflate their kWh production data. As such, all meter reading and reporting should be handled by an independent party with no financial stake in the reported data. Indeed, Rhode Island's rules and regulations governing its Renewable Energy Standard stipulate the following in Section 6.8 (ii):

*NEPOOL GIS Certificates created by an aggregation shall be monitored and verified by a party ("Verifier") independent of the Generation Unit in the aggregation, the owner of the aggregation, the operator of the aggregation, and any other party that might create a conflict of interest in assuring accurate NEPOOL GIS Certificate creation.*

Moreover, in a recent letter to the NEPOOL Markets Committee, Elia Germani, Chairman of the Rhode Island Public Utilities Commission requested changes to the NE-GIS system so that Rhode Island could require all data in support of all behind-the-meter NE-GIS Certificates to be directly entered into the NE-GIS by independent third-parties.

Modifying the Regulations as suggested promotes a RPS and GIS Certificate market where only transparent and verifiable renewable generation is rewarded for every invested ratepayer dollar.

4) **Frequency of Data Collection and Reporting**

All kWh meter data shall be collected and reported from a system no less than once a month.

Note: Owners of Generation Units funded by the Massachusetts' Renewable Energy Trust already are required to report their system's electrical output every month into the MTC's Production Tracking System. Such regular reporting drastically improves system performance as underperforming systems can be quickly repaired and returned to full service. In addition, data is generally provided to the NE-GIS on a monthly basis, and the proposed change would make the reporting of meter data by small and behind-the-meter Generation Units consistent with the reporting of that data by the larger Generation Units in the NE-GIS.

Modifying the Regulations as suggested merely codifies a current requirement for the vast majority of RPS eligible systems and helps to ensure that more RPS compliant energy is generated in the Commonwealth by all eligible systems.

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<sup>3</sup> These are consistent with the standards employed by the Rhode Island Public Utilities Commission in Section 6.8 of its Rules and Regulations Governing the Implementation of a Renewable Energy Standard.